

Amendments to the Specification:

Please replace paragraph [0010] with the following amended paragraph:

[0010] Specifically, as shown in Fig. 4, in a case in which a signal Is for switching the on/off condition of an arbitrary pair of switching elements is sent from drive unit 4 to inverter 2, an upper switching element USE is switched from ON to OFF at a time later than a time at which the signal is switched from a high level to a low level, a lower switching element LSE is switched from a low level to a high level at a time later than the above-described time, and as a result of this switching operation, the power source current Idc varies. Further, because the measurement signal of DC current sensor 6, which comprises a resistance and the like, is output to control unit 5 after being A/D converted by A/D converter 7, a time delay occurs in obtaining the A/D converted output (shown as “A/D” in Fig. 4) and accompanies the variation of the power source current Idc. Because the time td shown in Fig. 4 becomes about ~~on one~~ one and one half micro (1.5μ) seconds in the situation in which a general insulated, gate bipolar transistor (IGBT) element is used as a switching element, a time interval of at least about td is required between measurement times t1 and t2 in order to accurately measure the power source current Idc at measurement time t1. Therefore, when the time difference between measurement times t1 and t2 are less than the time td shown in Fig. 4, even if the power source current Idc is measured at measurement time t1, the measured value may include an error.

Please replace paragraph [0049] with the following amended paragraph:

[0049] On the other hand, as with respective phase currents Iu, Iv, and Iw shown in the lower portion of Fig. 6, when the respective phase currents Iu, Iv, and Iw vary in one or a plurality of continuous periods of reference chopping wave BTW, although the above-described estimations may be possible, the following method may obtain a more accurate value. For example, W-phase current Iw(T2) at measurement time T2 is estimated by the equation: $Iw(T2) = (Iw(T1) + Iw(T3)) / 2$ from W-phase current Iw(T1) measured at measurement time T1 and W-phase current Iw(T3) measured at measurement time T3, W-phase current Iw(T4) at measurement time T4 is estimated by the equation: $Iw(T4) = (Iw(T3) + Iw(T5)) / 2$ from W-phase current Iw(T3) measured at measurement time T3 and W-phase current Iw(T5) measured at

measurement time T5, and W-phase current $I_w(T3)$ at measurement time T3 is estimated by the equation: $I_w(T3) = (I_w(T2) + I_w(T4)) / 2$ based on estimated, W-phase current $I_w(T2)$ at measurement time T2 and estimated W-phase current $I_w(T4)$ at measurement time T4.

Please replace paragraph [0051] with the following amended paragraph:

[0051] Therefore, if power source current I_{dc} is measured at three measurement times T1, T2, and T3, because W-phase current I_w may be measured at measurement time T1, V-phase current I_v may be measured at measurement time T2 and U-phase current I_u may be measured at measurement time T3, respectively, respective phase currents I_u , I_v , and I_w at a time, determined by treating the measurement times T1, T2 and T3 as identical, may be detected without calculation. Of course, a phase current, which may not be ~~measure~~ measured at another measurement time, may be measured by inverting at least one phase output at the measurement time.